these frequencies---the Telecommunications Division has caught several unwary State agencies purchasing/using these radios. Agency personnel were particularly upset when informed that they were not eligible to use those frequencies and would have to cease such use immediately. One manufacturer even had the audacity at a recent product show to ask Commission staff members what the Commission was planning to do to protect these unlicensed users. The Commission needs to initiate positive steps to take these users under control or abandon all hope and consider it to be another Citizen's Band.

LIMITS ON SHARED CHANNELS

43. The State supports no substantive changes in the number of shared channels an individual licensee may hold. The State believes the current limitations are both necessary and desirable in preserving spectrum for future users. While an agency needs a certain amount of assurance that it will be able to expand its existing radio system to meet future needs, it should not be allowed to unreasonably warehouse frequencies to the detriment of another needy user. All applicants should be required to justify their need for additional channels.

SPREAD SPECTRUM OPERATIONS

44. The State supports the inclusion of direct sequence spread spectrum systems for use in public safety covert operations. Although the State has virtually no experience with such equipment, it appears as if this technology will offer significant advantages to State operations. We see little chance for interference problems from this equipment, provided the total number of units in operation in any area at any time is kept relatively low. Nonetheless, California recommends the Commission proceed cautiously until the reliability and interference potential for this type of equipment is more fully understood.

RESUBMITTED APPLICATIONS

45. The State opposes the change from sixty (60) days to thirty (30) days for resubmittal of an application returned for correction as proposed in Section 88.103(d). In the State's experience, the primary reason applications are returned is a difference in interpretation of the Rules regarding the distance to the nearest airport, an issue which the Commission defers to the Federal Aviation Administration (FAA) for resolution. The FAA seldom responds to a request for "Determination of Hazard" in time to meet the proposed thirty day deadline. This would result in most returned applications losing their place in line for processing.

CONDITIONAL PERMITS

46. The State supports the concept of conditional permits as proposed in Section 88.151. However, we are concerned about the wording contained in sub-paragraph (a)(2) requiring that the antenna structure be previously studied by the Federal Aviation Administration (FAA). Section 17.7 of the Rules establishes the criteria for determining whether a "Notice of Proposed Construction" needs to be filed with the FAA. In the State's experience, most antenna towers do not require review by the FAA. Radio stations using these towers should be eligible for conditional permits, even though the tower has not been studied by the Federal Aviation Administration as the wording of this section would imply is necessary.

FREQUENCY STABILITY

47. The State opposes the frequency stability requirements for the 150-220 MHz, 220-222 MHz, and 420-512 MHz bands as listed in Section 88.425, Table C-2. The proposed standards require stabilities that are much greater than those currently available on commercial radio

equipment[9/]. To meet these new 0.1 ppm standards, equipment will most likely have to use extremely expensive frequency sources that may not function properly in the uncontrolled temperature environments typical of remote mountain-top radio sites.

48. Furthermore, the test equipment currently used by State radio technicians is not capable of measuring frequencies at an accuracy of 0.1 ppm as required by the Commission's proposal. A normal engineering rule-of-thumb is the accuracy of the device making a measurement should be at least 10 times the accuracy of the measurement desired. Thus, the test equipment should be capable of measuring to an accuracy of 0.01 ppm. To reach this level of accuracy, the State believes laboratory-grade equipment that is maintained in a controlled environment would have to be used. This type of test equipment is more expensive than that currently used and is not practical for use in a field environment.

DISASTER RELIEF AGENCIES

49. The State opposes the elimination of restrictions to national disaster relief organizations in the re-wording of Sections 90.41 and 90.53(b)(5) into the new Section 88.655. While the section is titled "National Disaster Relief Frequency", nowhere does it restrict use of 47.42 MHz to a national organization. Rather, it permits any organization established for disaster relief purposes access to this frequency. California's experience in disaster management has shown that having a single frequency for the multitude of "disaster relief organizations" responding to an incident will not provide for adequate communications. These disaster relief organizations,

---

[9] Some manufacturers guarantee an end-to-end frequency error of 0.1 ppm. In the State's opinion, this is not the same as "frequency stability" as defined by the Commission. "Frequency stability" refers to the absolute frequency of the transmitter and how much that frequency may vary from the frequency authorized by the Commission. "End-to-end frequency error" on the other hand, refers to the difference in frequency between the two ends and bears no relationship to the frequency authorized by the Commission.

especially those national organizations operating under a charter from Congress, provide essential services during and after a disaster. Furthermore, disaster relief agencies need to be able to operate their radio systems anywhere in the country shortly after arrival. The State recommends that use of 47.42 MHz be restricted to national organizations and that additional channels in all bands be identified for this critical service. The availability of spectrum for disaster relief agencies will be a particular problem since they would be an eligible user under the "Non-commercial Radio Service" category and, therefore, subject to significant competition for frequency assignments.

SEARCH AND RESCUE (SAR) ORGANIZATIONS

50. The Federal Government has encouraged establishment of Urban Search and Rescue (USAR) teams to deploy anywhere a major disaster occurs. Federal equipment standards for these teams call for communications equipment operating in the 450-470 MHz band, yet, there is no nationwide frequency allocation for this function. Currently, Search and Rescue teams are eligible for licensing under the Special Emergency Radio Service (SERS) and must share frequencies with other SERS eligibles. This often results in one SAR team having radios that are totally incompatible with the radios of another SAR team, thereby unnecessarily complicating coordination amongst teams. This problem is further exacerbated when other SERS eligible users are also on the same channels. The State recommends the Commission remedy this situation by setting aside frequencies for SAR team use.

OIL SPILL RESPONSE CHANNELS

51. The State opposes elimination of restrictions for use of 25.08 MHz, 150.980 MHz, 154.585 MHz, 158.445 MHz, 159.480 MHz, 454.000 MHz, and 459.000 MHz as being primarily

assigned for oil spill operations. Oil spills are environmental disasters that occur anywhere oil is found, loaded/unloaded, transported, or refined. When a spill occurs, responding agencies need to react quickly and must coordinate their efforts effectively. Such a response requires good communications.

52. The California Department of Fish and Game has been designated as the lead agency within California to coordinate State and local governmental response to oil spills. As such, it has been working with the oil companies and the U. S. Coast Guard to develop response plans. These plans include a communications element which identify specific uses for the channels identified above. The State requests that any restoral of the "oil spill" limitation to those channels include a clause which permits public safety agencies as well as oil companies, oil recovery companies, and related oil spill responders to operate on those channels for the purpose of coordinating oil spill activities or participating in training and drills.

TRAVELER'S INFORMATION STATIONS

53. Traveler's Information Stations (TIS) provide a valuable means of communicating with the motoring public. Due to the speeds on the Nation's highways, road signs are capable of carrying only short, often cryptic, messages. TIS stations on the other hand, are capable of transmitting a wealth of information. For this reason, California has an extensive network of TIS stations in-service. Most of these stations are at fixed locations and provide information of a recurring nature, such as along Interstate 80 near Truckee, CA, where winter snowstorms often cause serious problems for travelers. Other stations are mounted on trailers or pick-up trucks to allow rapid deployment to the scene of an incident. In either case, motorists learn valuable information about road and weather conditions, about the reasons for a delay, and about alternate routes.

54. The Rules proposed in Section 88.1089 through 88.1097 (inclusive) closely mirror the existing Rules in Section 90.242. Specifically, TIS stations may operate on any 10 kHz incremental frequency between 530 kHz and 1700 kHz on a secondary basis to AM broadcast stations. Because of the valuable information provided to the motoring public by TIS stations and the fact virtually every vehicle in the United States is equipped with an AM broadcast receiver, the State requests the Commission establish one channel nationwide for use by TIS stations on a primary basis. Since no AM broadcast stations have been constructed in the 1605-1705 kHz portion of the band, we recommend assignment of 1700 kHz for this purpose. This request does not affect the on-going need for TIS stations to operate on a secondary basis in the remainder of the AM broadcast band.

AUTOMATIC VEHICLE MONITORING (AVM) SYSTEMS

55. The State notes that PR Docket 93-61 which is a Notice of Proposed Rule Making to amend Part 90 of the Rules to adopt regulations for Automatic 16 Vehicle Monitoring Systems is currently pending comments (due June 29, 1993). The new rules resulting from that Notice should be incorporated into Part 88.